# 海桐花属一些种类的新异名

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# New synonymies of some species of *Pittosporum* (Pittosporaceae)

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Abstract As part of a revision of Chinese Pittosporum Banks ex Gaertn. for the forthcoming account of Pittosporaceae in "Flora of China", Volume 9, eight names, all described from China, are reduced to synonymy as follows: P. illicioides Makino var. angustifolium T. C. Huang ex S. Y. Lu, syn. nov. and P. illicioides var. stenophyllum P. L. Chiu ex H. T. Chang & S. Z. Yan, syn. nov., both under P. illicioides; P. densinervatum H. T. Chang & S. Z. Yan, syn. nov. and P. longicarpum S. K. Wu ex C. Y. Wu, syn. nov., both under P. kweichowense Gowda var. kweichowense; P. polycarpum H. T. Chang & S. Z. Yan, syn. nov. under P. paniculiferum H. T. Chang & S. Z. Yan; P. membranifolium S. C. Huang ex C. Y. Wu, syn. nov. under P. perryanum Gowda var. perryanum; P. monanthum C. Y. Wu, syn. nov. under P. podocarpum Gagnep. var. podocarpum; and P. tobira (Thunb.) W. T Aiton var. chinense S. Kobayashi, syn. nov. under P. tobira.

Key words Pittosporaceae; Pittosporum; New synonymies

## 1 海金子

Pittosporum illicioides Makino in Bot. Mag. Tokyo 14: 32. 1900. TYPE: Japan. Harima: Kishima-mura in Ibo-gori, Feb 1900, U. Ouye s.n. (holotype, not seen).

- P. illicioides var. angustifolium T. C. Huang ex S. Y. Lu in Quart. J. Chin. Forest. 10: 144. 1977, syn. nov. TYPE: China. Taiwan (台湾), Taizhong (台中), Heping Xiang, Bi Lu Xi, without date (fr.), S. Y. Lǔ(吕胜由) 5916 (holotype, TAIF, not seen).
- P. illicioides var. stenophyllum P. L. Chiu ex H. T. Chang & S. Z. Yan in Fl. Reip. Pop. Sin. 35(2): 16. 1979, syn. nov. TYPE: China. Zhejiang (浙江), Longquan (龙泉), streamside in valley, 700 m, without date, S. Y. Zhang (章绍尧) 3262 (holotype, HHBG, not seen).
- P. illicioides var. stenophyllum is considered to differ from P. illicioides var. illicioides in having leaves narrowly lanceolate,  $10 \sim 18$  cm  $\times 1.7 \sim 3.3$  cm. However, these characters fall with-

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in the range of variation of typical P, illicioides. P. illicioides var. angustifolium (described from Taiwan) represents the extreme of the continuous range of variation, with leaves linear,  $5 \sim 15$  cm  $\times 0.6 \sim 2$  cm.

Distribution: China (Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Sichuan, Taiwan, and Zhejiang), Japan.

In forests, thickets, valleys, and along streamsides from 100 ~ 2200 m in altitude.

#### 2 贵州海桐

Pittosporum kweichowense Gowda, J. Arnold Arbor. 32; 296. 1951. TYPE: China. Guizhou (贵州), Anlong"Anlung"(安龙), 500 m, light woods, 1930-10-20, Y. Tsiang (蒋英) 7444 (holotype, NY, not seen).

P. densinervatum H. T. Chang & S. Z. Yan in Acta Phytotax. Sin. 16(4): 86. 1978, syn. nov. TYPE: China. Hunan (湖南), Longshan (龙山), forest margin, 1060 m, without date, L. H. Liu (刘林翰) 1942(holotype, IBSC!).

P. longicarpum S. K. Wu ex C. Y. Wu, Fl. Yunnan. 3: 314, pl. 90: 2. 1983, syn. nov. TYPE: China. Yunnan (云南): Wenshan (文山), forest, 1958-09-24 (fr.), H. T. Tsai (蔡希陶) 58-8053 (holotype, KUN; photo, PE!).

The original description of P. densinervatum indicated that it differs from P. kweichowense in having elliptic leaves  $2 \sim 3$  cm wide. However, this character is quantitative and clearly falls within the range of variation of P. kweichowense. P. longicarpum is considered to differ from P. kweichowense in having oblong capsules  $15 \sim 20$  mm long, and longer fruiting pedicels. However, based on our studies these characters show continuous variation and there are no other characters that distinguish P. kweichowense from P. longicarpum S. K. Wu ex C. Y. Wu.

Distribution: China(SW Guizhou (Anlong), W Hunan (Zhijiang, Longshan), and SE Yunnan (Wenshan)].

In forests, thickets, and along riversides from 500 ~ 2000 m in altitude.

#### 3 圆锥海桐

Pittosporum paniculiferum H. T. Chang & S. Z. Yan in Acta Phytotax. Sin. 16(4): 90. 1978. TYPE: China. Yunnan (云南), Lincang (临沧), Mayidui, without date, J. S. Xin (辛景三) 406 (syntype, IBSC!); ibid., J. S. Xin (辛景三) 523 (syntype, KUN, not seen).

P. polycarpum H. T. Chang & S. Z. Yan, Acta Phytotax. Sin. 16(4): 90. 1978, syn. nov. TYPE: China. Sichuan (四川), Mt. Emei (峨眉山), without date, Y. X. Xiao (肖永贤) 49736 (syntype, SYS!); ibid., G. H. Yang (杨光辉) 54650 (syntype, SZ, not seen).

P. polycarpum is considered to differ from P. paniculiferum in having capsules subglobose and seeds more numerous; however, these character states also occur in the latter species. P. polycarpum was omitted from the treatment of the genus in Flora Reipublicae Popularis Sinicae (Chang & Yan, 1979).

Distribution: China[C Sichuan (Mt. Emei) and S Yunnan].

In forests, thickets, and on limestone slopes from  $500 \sim 1600$  m in altitude.

### 4 缝线海桐

Pittosporum perryanum Gowda in J. Arn. Arb. 32: 290. 1951. TYPE: China. Guangxi

(产西), Shiwandashan (Sup Man Ta Shan)(十万大山), 1937-07-21, H. Y. Liang (梁向日) 69823 (holotype, A, not seen, isotype, IBSC!).

- P. membranifolium S. C. Huang ex C. Y. Wu, Fl. Yunnan. 3: 314. Pl. 90: 3. 1983, syn. nov. TYPE: China. Yunnan (云南), Shuangjiang (双江), 1957-09-20 (fr.), J. S. Xin (辛景三) 1089(holotype, KUN; photo, PE!).
- P. membranifolium is considered to differ from P. perryanum in having leaves longer,  $16 \sim 22$  cm, apex cuspidate to abruptly acuminate, and capsules larger,  $25 \sim 32$  mm  $\times 14 \sim 17$  mm. However, these morphological characters also occur in P. perryanum, and thus the establishment of P. membranifolium is not supported.

Distribution: China[W Guangdong (Xinyi), S Guangxi, SW Hainan, S Sichuan (Changning, Hejiang), and S Yunnan].

In forests, thickets, valleys, and on slopes and stream sides from 600 ~ 1800 m in altitude.

#### 5 柄果海桐

Pittosporum podocarpum Gagnep, in Notul. Syst. (Paris) 8; 211. 1939. TYPE; China. W. China (中国西部), 1904, Wilson 3231 (syntype, P, not seen); ibid., Wilson 3231a (syntype, P, not seen); Chongqing (重庆), Chengkou "district Tchen-keou-tin"(城口), [Chengkou], without date (fl. & fr.), Farges 1166 (syntype, P, not seen); Yunnan (云南), Binchuan (宾川) "Pin-tchouan" [Binchuan], without date, Ducloux 6709 (syntype, P, not seen).

P. monanthum C. Y. Wu, Fl. Yunnan. 3: 318. Pl. 91:2. 1983, syn. nov. TYPE: China. Yunnan (云南), Jingdong (景东), forest, 1963-05-15 (fl.), C. A. Wu (武全安) 9222 (holotype, KUN; photo, PE!).

The original description of P. monanthum indicated that it is close to P. podocarpum but differs in having leaves oblanceolate, lateral veins few, in 4 or 5 pairs, flowers solitary, pedicels very shortly pilose, and calyx cupular and pilose. We have observed all these characters in several specimens of P. podocarpum from Sichuan, and found that these characters are quantitative and clearly fall within the variation range of P. podocarpum.

Distribution: China(Fujian, Gansu, Guangxi, Guizhou, Hubei, Hunan, Shaanxi, Sichuan, Xizang, and Yunnan), India, Myanmar and Vietnam.

In forests and shady places, and on slopes and riversides from  $500 \sim 2700 (\sim 3000)$  m in altitude.

### 6 海桐

Pittosporum tobira (Thunb.) W. T. Aiton, Hort. Kew. 2: 27. 1811. — Euonymus tobira Thunb. in Nova Acta Regiae Soc. Sci. Upsal. 3: 208. 1780. TYPE: described from Japan, not seen.

P. tobira var. chinense S. Kobayashi in J. Jpn. Bot. 57: 74. 1982, syn. nov. TYPE: China. Jiangsu (江苏), Suzhou (苏州), without date, S. Oka 359 (holotype, TI, not seen).

The original description of P. tobira var. chinense indicated that it is close to P. tobira var. tobira, but in the former inflorescences having appressed, short, soft hairs, while in the latter inflorescences having long-armed hairs, and the stalks are composed of  $5 \sim 7$  cells. Except the type specimen collected from Suzhou of Jiangsu Province, up to now there is no record from China. How-

ever, in the specimens of Kyushu and Korea, short-and long-armed hairs are mixed about half and half on an inflorescence (Kobayashi, 1982). Therefore, we are reluctant to accept var. chinense as a distinct taxon, and prefer to regard it as a synonym of P. tobira var. tobira.

Distribution: China (Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Jiangsu, Sichuan, Yunnan, and Zhejiang).

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#### References

Chang H-T (张宏达), Yan S-Z (颜素珠), 1979. Hamamelicaceae. In: Flora Reipublicae Popularis Sinicae. Beijing: Science Press. 35(2): 1~36

Kobayashi Sumiko, 1982. A taxonomical note on Pittosporum tobira and its allied species. J Jpn Bot, 57: 70 ~ 80

摘要 作为对英文版 "Flora of China" 海桐花科的分类学修订结果,提出了海桐花属 6 个种的 8 个新异名,并分别进行了讨论。

关键词 海桐花科;海桐花属;新异名

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